

β1
transferred through distal surface 131 to first surface 134 of heatsink 100 by conduction, heat within first surface 134 is transferred through convection to cooling fluid 170 that is in contact with first surface 134. Pump 150 is located at the edge of chamber 135 in base 130 and receives the cooling fluid. Cooling fluid 170 then enters pump intake 152 where pump 150 then pumps the cooling fluid 170 from first surface 134 of chamber 135 to first surface 161 of divider 155. As the cooling fluid 170 moves over the first surface 161 of divider 155 heat is transferred from the cooling fluid 170 to second surface 138 of chamber 135 and to fins 140. Cooling fluid 170 then is drawn through fluid return apertures 165 and back to first surface 134 of chamber 135 to repeat the process above. The process above is carried out so long as pump 150 is energized. In one embodiment, pump 150 is energized from a power source coupled to the heat source, thus when the heat source is receiving power, pump 150 also receives power. Alternatively, pump 150 may be coupled to a temperature-sensing device, so that pump 150 is energized above a threshold temperature until a second lower temperature is reached.

Please replace the paragraph beginning at page 12, line 14 with the following paragraph:

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As shown in FIG. 5, heatsink 500 pump 550 disposed adjacent to an edge of base 530. Pump intake 554 is coupled to and in fluid communication with fluid outlet 531 and pump intake 552 is coupled to and in fluid communication with fluid inlet 533. The embodiment as shown in FIG. 5 allows pump 550 to be replaced in the event of pump failure.

Please replace the paragraph beginning at page 13 line 4 with the following paragraph:

Referring now to FIG. 6 there is shown a second alternative embodiment of the present invention. As illustrated in Fig. 6 heatsink 600 comprises a base 630 and fins 640. Base 630 further includes a chamber defined by a first surface 634 and second surface 638. Chamber 635 further includes divider 655 and pump 650 disposed therein. Divider 655 being disposed adjacent to the first surface 631 of base 630. Pump 650 being disposed adjacent to an edge of base 630.

Please replace the paragraph at page 14, line 7 with the following paragraph:

Referring now to FIG. 7, there is shown a third alternative embodiment of the present invention. Heatsink 700 as shown in FIG. 7 comprises a base 730, a plurality of fins 740 and a fan 790. Base 730 further includes a chamber 735 defined by a first surface 734 and a second surface 738. Chamber 735 further includes divider 755, cooling fluid 770 and pump 750 disposed therein. Divider 755 is disposed adjacent to first surface 734 of chamber 735. Pump 750 being disposed adjacent to an edge of chamber 735.

In the claims:

1. A device for the transfer of heat away from a heat source comprising:
a base having first and second surfaces;